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PATENT

Coker
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Boardman et al. : Art Unit: 3641
 Serial No.: 09/735,009 : Examiner: R. Palabrica
 Filed: December 12, 2000 :
 For: SYSTEM AND METHODS OF :
 PRODUCING HYDROGEN USING A :
 NUCLEAR REACTOR :

AMENDMENT

Commissioner for Patents
 Washington, D.C. 20231

In response to the Office Action dated January 11, 2002, please amend the above-identified patent application as follows.

IN THE CLAIMS

Please add the following new claims.

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25. A system for generating hydrogen comprising:
 feed water;
 a liquid metal nuclear reactor having a non-radioactive secondary heat loop;
 a steam generator connected to said secondary heat loop, said steam generator capable of raising the temperature of said feed water to between about 450°C to about 550°C;
 a high temperature water cracking system, said feed water coupled to said water cracking system by a feed water input line; and
 a topping heater, said topping heater capable of raising the temperature of said feed water so that said feed water in said high temperature water cracking system is at least about 850°C.